

Amendments to the Specification:

Please replace paragraph [0005] with the following amended paragraph:

[0005] However, flip chip mounting of a laser die has poor heat transfer characteristics. The contact area of the solder ball joint is very small and thus thermally resistive. Therefore, another heat path must be added to dissipate heat away from the laser. The back of the laser die is usually used as a path for heat transfer. However, the exact location of the laser and the thickness of the laser die have manufacturing variations that ~~creates~~ create a variation in the location of the back of the laser die. A conventional solid connection between the back of the laser die and a heat sink often creates an over-constrained design that overstresses and breaks the solder ball joints. Non-rigid connections, such as crushable gold wire mesh, carbon or metal loaded elastomer pads, and spring contacts, usually have poor heat transfer characteristics. Thermal and electrical connections must survive large temperature variations, such as those that occur when the finished package is soldered to a printed circuit board (PCB). These temperature variations can often be the stress that breaks connections in over-constrained designs.

Please replace paragraph [0016] with the following amended paragraph:

[0016] A soft metal thermal conductor 30 is disposed between the inner surface of lid 24 and the bottom surface of flip chip mounted laser die 12. Soft metal 30 can creep or cold flow. A soft metal, such as indium, can cold flow at a pressure of 500 pounds per square inch. A soft metal, again such as indium, can cold flow much faster than package 10 (specifically laser die 12 and lid 24) can thermally cycle (i.e., expand and contract). Soft metal 30 can be indium, gallium, mercury, or tin/lead solder. Soft metal 30 may be liquid or solid depending on the temperatures of laser die 12 and lid 24. The inner surface of lid 24 and the bottom surface of laser die 12 have corresponding metal pads 32 and 34 (Fig. 2 only) that control the location of the soft metal by not letting soft metal 30 flow out of the joint. The soft or liquid metal 30 ~~being~~ is held in place by surface tension. The design of pads 32 and 34 are such that these pads do not dissolve into soft metal 30.

Please replace paragraph [0022] with the following amended paragraph:

[0022] In a first step shown in Fig. 3, laser die 12, photodetector die 14, and laser driver die 16 are flip chip mounted on solder balls onto substrate 18. Dies 14, 12 and 16 can have their backsides metallized at the wafer level to form metal pads 34, 40, and 46 before being sawn into individual die dies.

Please replace paragraph [0024] with the following amended paragraph:

[0024] In a third step shown in Fig. 5, soft metals 30, 36, and 42 are disposed on metal pads 32, 38, and 44 of lid 24. Soft metals 30, 36, and 42 can be metal performs (stamped soft metal ~~pieces~~ pieces) placed, or pressed, on metal pads 32, 38, and 44. Preforms 30, 36, and 42 can be loose or held in place by the slight force of interlocking when they are pressed down into metal pads 32, 38 and 44.